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10/671,903

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Richard F. Gladney

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* RICHARD F. GLADNEY

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Appeal 2009-002935  
Application 10/671,903  
Technology Center 3600

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Decided: October 26, 2009

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Before LINDA E. HORNER, JOHN C. KERINS, and STEFAN  
STAICOVICI, *Administrative Patent Judges*.

HORNER, *Administrative Patent Judge*

DECISION ON APPEAL

## STATEMENT OF THE CASE

Richard F. Gladney (Appellant) seeks our review under 35 U.S.C. § 134 of the Examiner's decision rejecting claims 1, 2, 4, 6-13, 18-22, 24-27, and 29. Claims 3, 5, and 14-17 have been canceled. Claims 23 and 28 are pending and not rejected, the rejections against these claims having been withdrawn by the Examiner in the Answer. Ans. 2-3. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

## SUMMARY OF DECISION

We AFFIRM-IN-PART.

## THE INVENTION

Appellant's claimed invention is to a mattress that prevents or mitigates the development of a center ridge. Spec. 2, para. 0005. A center ridge is formed when materials in a two-person mattress become compressed in the areas of the surface where people sleep and materials along the center of the mattress remain uncompacted and over time present an elevated surface. Spec. 1, para. 0003. The center ridge is also caused, or worsened, as people enter and exit beds, and by so doing urge materials within the mattress core toward the mattress center. *Id.* Claims 1 and 21, reproduced below, are representative of the subject matter on appeal.

1. A mattress comprising:
  - a head end;
  - a foot end;
  - a first side and a second side; and
  - a center region traversing the mattress from the head end to the foot end, the center region including one or more materials other than a single air bladder that mitigate the emergence of a center ridge over repeated uses of the mattress, the center region having a width of between about two inches and about twelve inches.
  
21. A method for manufacturing a mattress, the method comprising:
  - constructing a first region and a second region of one or more materials having a first firmness, the first region and the second region being configured to provide a sleeping surface to one or more users of the mattress;
  - constructing a center region between the first region and the second region, the center region being constructed of one or more materials other than a single air bladder that together have a second firmness different than the first firmness, the center region having a width of between about two inches and about twelve inches.

### THE EVIDENCE

The Examiner relies upon the following evidence:

Fultz	US 3,516,901	Jun. 23, 1970
Kentor <sup>1</sup>	US 3,608,107	Sep. 28, 1971
Talbert	US 4,086,675	May 2, 1978
Klancnik	US 4,092,749	Jun. 6, 1978
Farley (Farley '849)	US 5,077,849	Jan. 7, 1992
Bonaddio	US 5,537,699	Jul. 23, 1996
Selman	US 5,579,549	Dec. 3, 1996
Farley (Farley '179)	US 6,003,179	Dec. 21, 1999
Nunez	US 6,041,459	Mar. 28, 2000

### THE REJECTIONS

Appellant seeks review of the following rejections:<sup>2</sup>

1. The Examiner rejected claims 1, 2, 4, 6-8, 18-22, 24-27, and 29 under 35 U.S.C. § 103(a) as being unpatentable over Selman or Nunez in view of Farley '849 or Farley '179.
2. The Examiner rejected claims 9-11 under 35 U.S.C. § 103(a) as being unpatentable over Selman or Nunez in view of Farley '849 or Farley '179, and further in view of Klancnik.

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<sup>1</sup> The Examiner relied on Kentor only to support the taking of Official Notice that "Queen and King size mattresses are well known and old." Ans. 7, 11.

<sup>2</sup> The Examiner withdrew the following rejections: claims 1, 2, 4, 6-13, and 18-29 under 35 U.S.C. § 112, first paragraph, claims 1, 2, 6, 9, and 18-28 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,859,505 to Jarvis, and claims 4 and 29 under 35 U.S.C. § 103(a) as unpatentable over Jarvis. Ans. 2-3. As such, claims 23 and 28 are pending and not rejected.

3. The Examiner rejected claims 9, 12, and 13 under 35 U.S.C. § 103(a) as being unpatentable over Selman or Nunez in view of Farley '849 or Farley '179, and further in view of Talbert or Bonaddio or Fultz.

### ISSUES

The Examiner found Selman and Nunez disclose a center region traversing the mattress from a head end to a foot end, as called for in claims 1, 18, and 20. Ans. 4, 9.

Appellant contends the Examiner erred in rejecting these claims because Selman and Nunez disclose the center portion traversing the mattress from side-to-side instead of from the head end to the foot end as claimed. App. Br. 13, 21.

The Examiner further found Selman and Nunez disclose a center region between a first region and a second region of a mattress, and Farley '849 and Farley '179 disclose the center region having a width of between about two inches and about twelve inches, as called for in claim 21. Ans. 5, 15, 16.

Appellant contends the Examiner erred in rejecting claim 21 because Selman, Nunez, Farley '849, and Farley '179 fail to teach or suggest the center region having a width of between about two inches and about twelve inches. Reply Br. 16.<sup>3</sup>

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<sup>3</sup> Appellant also contended in the Appeal Brief that the Examiner erred in rejecting claim 21 because Selman and Nunez disclose the center portion traversing the mattress from side-to-side instead of from the head end to the

The issues presented by this appeal are:

Has Appellant shown the Examiner erred in finding that Selman and Nunez disclose a mattress having a center portion that traverses the mattress from the head end to the foot end, as called for in claims 1, 18, and 20?

Has Appellant shown the Examiner erred in finding that the combined teachings of Selman, Nunez, Farley '849, and Farley '179 would have led one having ordinary skill in the art to modify the mattresses of Selman and/or Nunez to make the center region having a width of between about two inches and about twelve inches, as called for in claim 21?

#### FINDINGS OF FACT

We find that the following enumerated findings are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

1. Selman discloses a mattress having a transverse center portion of relatively increased firmness to extend mattress life, provide increased and lasting user comfort, and decrease wear caused by the inner springs in the center portion, which bears the most weight

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foot end. App. Br. 13, 21. Appellant, presumably realizing that claim 21 does not contain the limitation that the center portion traverses the mattress from the head end to the foot end, apparently dropped this argument in the Reply Brief. See Reply Br. 15-16 (limiting the argument regarding the head end and foot end to only independent claims 1, 18, and 20).

during sleeping. Selman, col. 1, ll. 8-9 and ll. 27-29; *id.* at col. 2, ll. 5-8 and ll. 15-18. Selman discloses an insulator pad 100 having a center portion 102, a head portion 104, and a foot portion 106, where the center portion 102 has increased firmness in comparison to head portion 104 and foot portion 106. Selman, col. 3, ll. 19-22; fig. 1. Selman further discloses an alternate embodiment also having a center portion 202 of enhanced firmness that is enhanced “to support the wear due to sitting and sleeping.” Selman, col. 4, ll. 51-54; fig. 2. The center portions 102, 202 are located midway between the mattress head portion and foot portion and traverse the mattress from side-to-side. Selman, figs. 1, 2.

2. Nunez discloses a mattress 10 having a convoluted foam cushion 12 which is divided in seven, longitudinally-spaced zones 41-47 having select convoluted pattern configurations to provide support and comfort areas. Nunez, col. 2, ll. 44-45 and ll. 55-7; *id.* at col. 3, ll. 6-8; fig. 1. Nunez discloses that the width of each zone corresponds to the width of the body. Nunez, col. 3, ll. 8-9. Support zones 41, 43, 45, and 47 provide additional support to a user’s head and neck, lower back area, lower buttocks and thigh area, and lower leg, ankle and foot area, respectively. Nunez, col. 3, ll. 9-10; *id.* at col. 3, l. 62 – col. 4, l. 3. Zones 42, 44, and 46 are comfort zones underlying the user’s shoulder area, hips and upper buttocks area, and calf and leg area. Nunez, col. 3, l. 10; *id.* at col. 3, l. 62 – col. 4, l. 2. The comfort zones provide less support to the



user's body than the support zones. Nunez, col. 3, ll. 14-16. As such, each zone traverses the mattress from side-to-side. Nunez, fig. 1.

3. Farley '849 discloses a convoluted foam pad having at least one area of the pad that provides less resistance to the weight of the body than other areas of the pad to allow the portion of the body resting on this area of the pad to sink farther into the pad. Farley '849, col. 3, ll. 16-28. Farley '849 discloses in one embodiment a pad 195 having shoulder and tail support areas 203 and 207, which have a lower foam content than the head, middle back, and leg and feet support areas 201, 205, and 209 to increase the surface area of the pad in contact with the shoulder and tail portion of the body and diminish the level of pressure exerted on the skin per unit area. Farley '849, col. 15, ll. 19-32; figs. 24, 25. Farley's tail support area 207 is located approximately midway between the head and foot support areas 201, 209 and traverses the mattress from side-to-side. Farley '849, fig. 24. Farley '849 discloses that the tail support area 207 has a length of approximately eleven inches. Farley '849, col. 15, ll. 52-53.
4. Farley '179 discloses a pad for supporting a recumbent human being upon an inclined surface and having distinct shoulder, tail, and foot support regions for facilitating optimal anatomical conformance to the human body. Farley '179, col. 1, ll. 5-9. In particular, Farley '179 discloses a support pad 10 having shoulder,

foot, and tail support regions 22, 24, and 26, and a general support region 28. Farley '179, col. 5, l. 2 and ll. 23-32; fig. 2. As shown in Figure 2, tail support region 26 is located approximately midway between a head end and a foot end of the pad and traverses the mattress from side-to-side. Farley '179 discloses the tail support region 26 has a width of from nine to seventeen inches, and a preferred width of approximately eleven inches. Farley '179, col. 5, ll. 41-44. Farley '179 discloses that the quantity of foam per unit volume in the general support region 28 is greater than the quantity of foam per unit volume in the shoulder, foot, and tail support regions 22, 24, and 26. Farley '179, col. 5, l. 66 – col. 6, l. 4.

#### PRINCIPLES OF LAW

“Both anticipation under § 102 and obviousness under § 103 are two-step inquiries. The first step in both analyses is a proper construction of the claims. . . . The second step in the analyses requires a comparison of the properly construed claim to the prior art.” *Medichem, S.A. v. Rolabo, S.L.*, 353 F.3d 928, 933 (Fed. Cir. 2003) (internal citations omitted).

We determine the scope of the claims in patent applications not solely on the basis of the claim language, but upon giving claims “their broadest reasonable interpretation consistent with the specification” and “in light of the specification as it would be interpreted by one of ordinary skill in the

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art.” *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

## ANALYSIS

*Rejection of claims 1, 2, 4, 6-8, 18-22, 24-27, and 29 as unpatentable over Selman or Nunez in view of Farley ‘849 or Farley ‘179*

*Independent claims 1, 18, and 20*

Independent claims 1, 18, and 20 each call for a mattress comprising a head end and a foot end and a center region “traversing the mattress from the head end to the foot end.” We disagree with the Examiner’s reading of the “head end” and “foot end” as merely statements of intended use. See Ans. 13-14. Appellant’s Specification defines the head end 108, the foot end 110, and the center region 102 of the mattress 100 relative to where sleepers are expected to repose. See e.g., Spec. 5-6, para. 0019. As such, one having ordinary skill in the art would understand that the claimed head end and foot end of the mattress correspond to the ends of the mattress nearest where the sleeper’s head and feet are expected to be located during normal use of the mattress. This understanding is consistent with descriptions of mattresses in the art, which also use the terms “head” and “foot” to describe regions of a mattress relative to the expected orientation of a sleeper when resting on the mattress (Facts 1-4). Based on the interpretation of the claimed head end and the foot end as referring to the ends of the mattress nearest where the sleeper’s head and feet are expected to be located during normal use of the mattress, neither Selman nor Nunez nor Farley ‘849 nor Farley ‘179

discloses a center portion as claimed traversing the mattress from the head end to the foot end (Facts 1-4). Selman discloses a mattress having a transverse center portion that is located midway between the mattress head portion and foot portion and traverses the mattress from side-to-side (Fact 1). Similarly, Nunez discloses a mattress 10 having a convoluted foam cushion 12 which is divided in seven, longitudinally-spaced zones 41-47 of support and comfort, where the zones each traverse the mattress from side-to-side (Fact 2). Likewise, Farley '849 and Farley '179 disclose a support pad having a tail support area that is located approximately midway between a head end and a foot end of the mattress and that traverses the mattress from side-to-side (Facts 3, 4). As such, we cannot sustain the rejection of independent claims 1, 18, and 20 under § 103 in view of Selman or Nunez in view of Farley '849 or Farley '179. For the same reasons, we cannot sustain this rejection of dependent claims 2, 4, 6-8, 19, 24-26, and 29.

*Independent claim 21*

Independent claim 21 is directed to a method for manufacturing a mattress including the step of constructing a center region of a second firmness between a first region and a second region of a first firmness. The claim recites that the first and second regions are configured to provide a sleeping surface to one or more users of the mattress. The claim calls for the center region to have a width of between about two inches and about twelve inches. As noted *supra*, Appellant argued that “Selman et al., Nunez et al., Farley '179, and Farley '849 fail to teach or suggest the ‘center region having a width of between about two inches and about twelve inches.’”

Reply Br. 16. The Examiner, however, found that Farley '179 and Farley '849 disclose center regions 26 and 207, respectively, having a width that falls within the claimed range. See e.g., Ans. 5 (citing to Farley '179, col. 5 and Farley '849, col. 15). We see no error, and Appellant has not adequately persuaded us of any error, in the Examiner's finding. In particular, Farley '849 discloses that the tail support area 207 has a length of approximately eleven inches (Fact 3), and Farley '179 discloses the tail support region 26 has a width of from nine to seventeen inches, and a preferred width of approximately eleven inches (Fact 4). The center regions of Selman (102) and Nunez (44) are both designed to lie beneath the tail or buttocks portion of a user's body (Facts 1, 2). Farley '179 and Farley '849 disclose that a preferred width for a region of a mattress support pad designed to lie beneath a user's tail portion is eleven inches (Facts 3, 4). Thus, it would have been obvious to modify the center portions of either Selman or Nunez, based on the teaching of a preferred width underlying the same region in Farley '179 and Farley '849, to make the center portions eleven inches. Such a mattress would fall within the claimed range of two to twelve inches. As such, we will sustain the Examiner's rejection of claim 21. Dependent claims 22 and 27 are likewise rejected, as Appellant presents no separate arguments for patentability of these claims. As such, claims 22 and 27 fall with claim 21. 37 C.F.R. § 41.37(c)(1)(vii) (2007).

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*Rejection of claims 9-11 as unpatentable over Selman or Nunez in view of Farley '849 or Farley '179 and further in view of Klancnik*

Claims 9-11 depend from claim 1. The Examiner's conclusion of obviousness of claims 9-11 relies on the erroneous interpretation of "head end" and "tail end" as discussed *supra* in our analysis of claim 1. Ans. 7-8, 12. The Examiner does not rely on Klancnik to disclose a center region traversing the mattress from the head end to the foot end as called for in claim 1. Further, we find that Klancnik does not cure the deficiency in the combined teaching of Selman or Nunez in view of Farley '849 or Farley '179. As such, we cannot sustain this rejection of claims 9-11.

*Rejection of claims 9, 12, and 13 as unpatentable over Selman or Nunez in view of Farley '849 or Farley '179 and further in view of Talbert or Bonaddio or Fultz*

Claims 9, 12, and 13 depend from claim 1. The Examiner's conclusion of obviousness of claims 9, 12, and 13 relies on the erroneous interpretation of "head end" and "tail end" as discussed *supra* in our analysis of claim 1. Ans. 8, 12-13. The Examiner does not rely on Talbert or Bonaddio or Fultz to disclose a center region traversing the mattress from the head end to the foot end as called for in claim 1. Further, we find that neither Talbert nor Bonaddio nor Fultz cures the deficiency in the combined teaching of Selman or Nunez in view of Farley '849 or Farley '179. As such, we cannot sustain this rejection of claims 9, 12, and 13.

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### CONCLUSIONS

Appellant has shown the Examiner erred in finding that Selman and Nunez disclose a mattress having a center portion that traverses the mattress from the head end to the foot end.

Appellant has failed to show the Examiner erred in finding that the combined teachings of Selman, Nunez, Farley '849, and Farley '179 would have led one having ordinary skill in the art to modify the mattresses of Selman and/or Nunez to make the center region having a width of between about two inches and about twelve inches.

### DECISION

The decision of the Examiner to reject claims 1, 2, 4, 6-13, 18-20, 24-26, and 29 is reversed. The decision of the Examiner to reject claims 21, 22, and 27 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

### AFFIRMED-IN-PART

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